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INTER-OFFICE CORRESPONDENCE

Richmond, Virginia

To: Dr. E. B. Sanders Date: September 27, 1991

From: R. Ferguson

Subject: 1991 Operations Support Plans

Attached is a copy of the plans for Operations Support as requested. Certain plan areas have been updated and some, such as environmental, have been deleted since they are not included as part of Operations Support at this time. These changes result in some difference from the original manpower allocations for this program, but this has not been recalculated.

Attachments

2021529922

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

PACKAGING - ANALYTICAL STUDIES

Program Objective:	To develop qualitative and quantitative analytical techniques to determine the chemistry of packaging materials and to relate the chemical nature of the materials with their sensory characteristics.
Operational Plans:	Packaging materials (inks, boards, finished packs, etc.) that have been proposed for us will be analyzed to determine the qualitative and quantitative nature of the material. Special emphasis will be placed on offset inks and printed materials, on water-based inks and on environmental issues related to product disposal.
Duration of Study:	Material evaluations will be on an as needed basis and is part of an on-going service to Purchasing, Quality Assurance, Packaging Studies and Flavor Technology. This program will also relate to taste/odor/stale research.
Estimated Resources:	This program will require 1.0 persons/year.
Primary Contact:	D. Ingraham

2021529923

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

MARLBORO TASTE/ODOR/STALE

Program Objective: To develop protocol for imparting controlled 'degrees of staleness' to Marlboro 85's (Soft Pack) and to determine whether or not product chemistry can be correlated with the subjective perception of staleness.

Additional studies will relate to the analysis of proposed promotional items related to their potential for contamination of product.

Operational Plans: Marlboro 85's will be subjected to various methods for moving water relative to other of the natural and added tobacco volatiles. Portions of the samples will be reordered to their original moisture content. PED panel smoking results will be evaluated relative to the chemistry of the tobacco.

Samples received from Flavor Technology and/or Purchasing will be analyzed as requested.

Duration of Study: Studies of the chemical composition of Marlboro volatiles relative to the sensory characteristics of the smoke will be evaluated by the end of the 3rd quarter. If the study shows promise, it will be pursued at higher level of resource commitment, if not, the study will be discontinued.

Analyses of promotional items and their impact on product will continue on as requested basis.

Estimated Resources: The study will require the services of 1.0 persons/year through the end of 1991. Additional follow up studies will be required in 1992.

Primary Contact: D. Ingraham

2021529924

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

ENGINEERING STUDIES

AEROBELL SPRAY STUDY

Program Objective:	To evaluate the Aerobell spray nozzle for applying burley spray to burley strip.
Operational Plan:	A simulated burley spray containing ethyl paraben as a trace was sprayed onto burley strip. The trials compared uniformity of spray application with Aerobell and 1/4 J standard production nozzle.
Duration of Study:	On-going
Estimated Resources:	0.1 person year
Contact Persons:	ARD - W. Ryan Engineering - N. Rowe

2021529925

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

ENGINEERING STUDIES

METHOPRENE/KABAT

Program Objective:	To monitor and improve the uniformity of methoprene application in Kabat-treated domestic flue-cured and burley tobaccos and qualify independent processors' stemmeries.
Operational Plan:	Methoprene and OV analyses were performed on samples taken at selected points in the Kabat application process lines at Dibrell Bros., J. I. Miller, A. C. Monk, Austin & Co., TPI (East Plant) and J. P. Taylor (#2) stemmeries.
Duration of Study:	Ongoing
Estimated Resources:	0.6 person year
Contact Persons:	ARD - W. Ryan Engineering - E. Bailey, G. Korval

2021529926

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

CROP PROTECTION AGENTS

Program Objective: To ensure that tobacco product components meet regulatory requirements.

ARD Objective: Provide methodology and measurements of crop protection agents (CPA) as needed.

Operational Plan:

a. Assemble laboratory - equipment personnel, consumables
b. Validate present FTR methodology
c. Improve or replace existing methodology where applicable.
d. Survey Richmond Oriental inventory
e. Expand laboratory capability to address other CPA and regulatory issues.
f. Serve as resource for other PM departments on CPA issues.

Duration of Study: Occupation of laboratory at R&D January 15, 1991. One GC and other laboratory equipment in place. Additional GC in place by May 15. FTR methodology validated by November '91. Oriental testing to begin October '91.

Estimated Resources: 2.3 person/years

Contact Persons: ARD - R. Davis and B. Handy
QA - F. Owen
Leaf Department - D. Hill

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Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

MATERIALS EVALUATION

Program Objective:	To identify the chemical composition of the commercial materials used at the various PM facilities.
Operational Plan:	The chemical evaluation of materials will continue to employ infrared spectroscopy as the major system of analyses. The x-ray fluorescence spectroscopy and other means of evaluating the materials will be used on an as needed basis.
Duration of Study:	The program is ongoing.
Estimated Resources:	The program will use 2.5 persons/year by estimate.
Primary Contact:	Gunars Vilcins

2021529928

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

ADHESIVES

Program Objective:	To develop analytical specifications for current, incoming adhesive materials and to transmit these specifications and methods to the appropriate QA groups.
Operational Plan:	The chemical nature, the pyrolytic decomposition products and the sensory characteristics will be determined for adhesives that are being or that are proposed for use. Specifications and recommendations of applicability for intended use will be written based on these data.
Duration of Study:	Definition of specifics related to the project including evaluation of supplier technology and the selection and evaluation of analytical and sensory protocol will be completed by the 4th quarter of 1991. Product evaluation and preparation of written specifications for presently used adhesives will be completed by the 4th quarter of 1992.
Estimated Resources:	The program will require 5.0 persons full time with some additional use of ARD resources. This group will also retain responsibility for specifications for any flavor revisions.
Primary Contact:	M. Zimmermann

2021529929

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

PRIMARY IMPROVEMENT - ANALYTICAL RESEARCH STUDIES

Burley Drier

Program Objective: To determine the optimum enthalpy (i.e. temperature and relative humidity) for drying Burley 34 and DBC Blend after application of Burley Spray.

Operational Plan: Burley grade 34 sprayed with a solution of glucose, fructose, and sucrose, and DCB blend sprayed with Burley Spray are dried at different temperatures and relative humidities. Samples are analyzed to determine chemical changes resulting from the drying at different enthalpies. Analyses include the determination of sugars in samples of Burley grade 34 and DBC Blend by ion chromatography and the characterization of the basic and neutral fractions of smoke condensate using gas chromatography/mass spectrometry.

Duration of Study: The sugar and smoke condensate analyses will require 3.25 months each to complete both test plans.

Estimated Resources: The sugar and smoke condensate analyses will require 0.7 person/year and 0.5 person/year, respectively.

Primary Contact: B. Handy, D. Self

2021529930

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

FLAVOR SPECIFICATIONS - REVISIONS

Program Objective: To develop analytical and sensory specifications for current incoming flavor materials. Transfer specifications and methods to the Flavor Center lab and to any other appropriate groups.

To certify that PMI export flavor materials meet GFO and issue certifications of analysis. Transfer methodology to the Flavor Center QA facilities.

Operational Plan: Certification of PM Domestic and PMI samples will continue as required following a review by Technical Services. Direct Materials specifications and methodology will be transferred to the Flavor Center with analytical back-up by ARD as required. Follow-up meetings will take place with vendors to discuss problems associated with methodology and technical aspects until all suppliers have been visited. Visits with key vendors will continue as required and included collaborative analyses on exchange samples.

Duration of Study: The major efforts for this program should be completed by the end of the first quarter of 1991. Analytical and sensory specifications protocols will be established for new flavor formulations and will be part of an on-going service of ARD.

Estimated Resources: The program will use 4.0 persons through 1st quarter 1991 and an estimated 3.0 persons as an on-going service.

Primary Contact: M. Zimmermann

2021529931

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

CABARRUS ET

Program Objective:	To monitor uniformity of ET product/process at Cabarrus.
Operational Plan:	Measure selected chemical components; alkaloids (ALK), total reducing sugars (TRS) and humectants (PG, Gly) in feed and ET product from Cabarrus.
Duration of Study:	To continue to submit samples taken biweekly from process.
Estimated Resources:	0.1 man-year
Contact Person:	ARD - Betty Handy Flavor - Howard Spielberg

2021529932

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

HOGSHEAD/BALE/BOX

Program Objective:	To determine if alternate packaging methods altered the effect of the tobacco aging process during storage, or significantly changed any other measurable quality parameter. Both bright (grades E67, E33 and E9) and burley (grades B57, B34, B3X and B5X) tobaccos were packed into hogsheads (control) for comparison against the PM-80 box and bale containers (test).
Operational Plan:	Measure levels of selected chemical components in samples of tobacco taken from storage containers.
Duration of Study:	Additional samples from this study are scheduled to be received in 1992 and 1997.
Estimated Resources:	None for 1991.
Contact Person:	ARD - Betty Handy QA - Frank Jones

2021529933

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

RECONSTITUTED FACILITY SUPPORT

Program Objective: Provide chemical analyses to support Plant or R&D reconstituted leaf optimization efforts. Direct or support collaborative studies to support internal and QA laboratory quality efforts.

Operational Plan: Analytical support is generally reactive in nature being driven by Project 1307 and 1309 experiments and studies. There is, of course, significant overlap between Operations concerns in maintaining current product and R&D efforts toward quality improvement, productivity to meet increased demand and available component utilization. On-going studies include reconstituted leaf stability , material balance to support environmental investigations, stem/OTM ratio investigations and flavor modifications. Analyses are generally restricted to those tests for which QA does not have current capability.

Duration of Study: The program is on-going but individual studies terminate, history says that terminated studies frequently re-emerge because of new information or new concerns. Collaborative studies have focused on humectant analysis, this will be extended to other specification component testing including parabens, sorbic acid, phosphorus and ammonia.

Estimated Resources: 1 man/year (this does not include direct C Pilot support or direct support for the Spanish facilities).

Contact Persons: ARD - Bill Ryan
R&D - Dick Uhl and Grant Gellatly

2021529934

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

COOPERATIVE LEAF STUDIES

Program Objective:	To participate in the cooperative tobacco industry program in order to assure that the quality of all new tobacco varieties meet or exceed all requirements as defined by minimum standards program.
ARD Objective:	Provide chemical analyses to support PM participation in the Cooperative Tobacco Variety Evaluation Program. Provide chemical analyses to assist in studies supported by the Leaf Agronomists.
Operational Plan:	Support for these programs will continue as in recent years. Alkaloids and reducing sugars and nitrogen are the analyses most frequently required.
Duration of Study:	The varietal testing in an on-going program, other programs may deal with crop management investigations such as crop spacing, maturity and fertilization.
Estimated Resources:	0.2 person/years.
Contact Persons:	ARD - Betty Handy & Chris Ament Project 2526- Roger Bass Leaf - David Conner

2021529935

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

SHEET CERTIFICATION

Program Objective: To define the analyses that are necessary to assure that export sheet materials meet the German Tobacco Ordinance criteria and to transfer the technology to the appropriate QA groups. Back-up analytical services will be provided to these groups on an as-needed basis.

Operational Plans: Methods development and analyses on production batches of RL and BL will continue to confirm the validity of analytical techniques. Certification of export sheet and transfer of the analytical methodology to appropriate QA labs will begin during second quarter of 1991.

Duration of Study: Major ARD involvement should be completed by the end of the year under present certification criteria

Estimated Resources: This program will require 1.5 persons/year through the end of 1991

Primary Contact: Duane Watson

2021529936

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

CUSTOMER COMPLAINTS

Program Objective: To provide analytical assistance to QA for customer complaint problems and to support quality improvement programs identified through consumer response.

Operational Plans: Continue analyses of customer complaints samples as required as an on-going service. The evaluations of samples will continue to employ gc and gc-ms for the identification of volatiles in an effort to determine the source of the complaint.

Duration of Study: The program is ongoing.

Estimated Resources: The program will use 1.0 persons/year.

Primary Contact: Dave Ingraham

2021529937

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

FLAVOR ANALYTICAL SUPPORT

Program Objective: To provide analytical and troubleshooting support to Operations Services, Quality Assurance and Manufacturing in matters involving flavors or flavor-related problems.

Operational Plan: Analytical support and troubleshooting will continue as appropriate upon request. Support areas include out-of-spec. concentrates, preblends, finished flavors and casings, off-flavors or odors, foreign matter, ingredient problems, etc.

Estimated Resources: 0.80

Primary Contact: R. Hale

2021529938

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

NONTOBACCO MATERIALS SUPPORT

Program Objective: To provide analytical and subjective evaluation support for the characterization and qualification of packaging materials, nontobacco cigarette components and other factory materials.

Operational Plan: Investigations will continue in the areas of offset printing, water-based inks/lacquers and other packaging issues dealing with promotional items and threshold level determination of residual solvents. Additionally, proposed new pack overwrap films will be evaluated and new testing procedures will be implemented to examine water and flavor/solvent transmission properties. Subjective panel evaluations will continue as appropriate upon request by Operations Services to qualify and/or characterize any new factory materials such as papers, adhesives, new packaging materials, cleaners, etc. to ensure product subjective integrity. Headspace GC evaluation of packaging materials will continue as required for established and new brands.

Estimated Resources: 4.85

Primary Contacts: B. Mait, G. Yatrakis and R. Hale

2021529939

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

NATURAL GLYCERIN/TRIACETIN

Program Objective: To develop analytical and subjective criteria necessary to qualify and specify all-natural glycerin-based triacetins from multiple vendors for interchangeable use as filter plasticizers.

Operational Plans: Analytical and subjective characterizations of synthetic and natural glycerins and triacetins from various vendors will continue in an effort to identify and classify impurities in "crude" products and verify their absence in production samples with respect to subjective quality. Direction will be provided to vendors as appropriate to try to standardize both glycerin and triacetin to the highest possible subjective quality standards for interchangeable use in Manufacturing.

Estimated Resources: 0.15

Primary Contact: R. Hale

2021529940

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

FLAVOR REVISIONS

Program Objective: To subjectively evaluate revised ingredients, reduced ingredients and/or flavors to qualify same for use in Manufacturing.

Operational Plans: Revised ingredients and flavors and Flavor Center submissions from Operations Services will continue to be evaluated and recommended for approval or further assessment. In addition, the reduced ingredients program will continue in anticipation of either regulatory or consolidation considerations.

Estimated Resources: 1.00

Primary Contact: B. Taylor and M. Garrett

2021529941

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

FACTORY SUBJECTIVE SUPPORT

Program Objective: Provide subjective panel testing services to Manufacturing, monitor new brand and test market start-ups, troubleshoot subjective problems in filler and cigarettes, and qualify process and direct material changes.

Operational Plans: Subjective monitoring and troubleshooting activities will continue on as needed basis. Subjective testing for qualification of burley dryer replacements, octagonal cylinders, Primary process changes, qualification of Ripper #2 at the MC, Cambridge blend change, new introductions and brand extensions is expected to continue throughout 1991.

Estimated Resources: 0.65

Primary Contact: W. Bell

2021529942

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

ENVIRONMENTAL ISSUES

Program Objective: To significantly reduce factory environmental emissions by the reduction of ethanol use in PM flavor systems without sacrificing product subjective integrity.

Operational Plans: Work will continue and will be extended to include other brands and flavor systems, in addition to Cambridge aftercut, to reduce ethanol use in flavors. The greatest potential for ethanol reduction is in Burley Top. Overall ethanol reduction potential is 18% for Burley Top alone. Analyses of flavors on filler and cigarettes, and subjective evaluations will continue. POL testing of reduced-ethanol versus current flavor systems is planned to test for subjective parity. In addition, trials of reduced and/or rearranged PG in flavors and casings are to be tested in combination with reduced alcohol.

Estimated Resources: 0.45

Primary Contact: S. Ruziak

2021529943

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

MARLBORO STANDARDIZATION

Program Objective: To aid in the standardization of manufacturing processes and procedures among PM factories to ensure consistant quality and minimal variation in the Marlboro brand family.

Operational Plans: Current 1991 projections include three unscheduled factory pickups each of Marlboro and Marlboro Lights (all packings) which will be subjectively evaluated by the Marlboro Standard Panel. In addition, a Standard Run IX is tentatively scheduled for early Summer, 1991, in which all manufacturing locations (including Semi-works) will produce Marlboro and Marlboro Lights using the same flavors and, where applicable, the same cigarette and packaging materials. Cigarettes from Standard Run IX will be subjectively tested both internally (Marlboro Standard Panel) and externally (POL). Selected analyses will be performed of ingredients, concentrates, preblends, finished flavors, blend components, finished filler and cigarettes to track production uniformity. Five POL requests have been made to qualify the MS modification. Test cigarettes were produced by both the Semi-works and Stockton Street. These cigarettes will be shipped between the 4th and 25th of March, 1991.

Estimated Resources: 0.80

Primary Contacts: K. Deane and W. Bell

2021529944

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000

SUPPORT TO PROCESSING PLANTS

Program Objective: To develop, evaluate, and/or optimize new additives, specifications and process changes to assure the subjective quality of reconstituted sheet materials.

Operational Plans: POL 3646 (test 3) has been scheduled for an early April ship date to complete the qualification of the evaporator upgrade at Park 500 Line 3. Implementation of dry flavor replacements in RLB at Park 500 is pending installation of flavor metering equipment. Specifications for the preparation of the solid extract of RSJB at the Flavor Center, inventory requirements and addition at Park 500 have been discussed with Technical Services personnel. Methodology for analyses of these materials will be developed by ARD. Tests of the substitutes in RCB are planned for the second quarter of 1991. Semi-works trials of Marlboro with reduced humectant levels in RCB and RL's were completed in January. Test blends are being made to evaluate soluble level effects in RL's. POL testing is scheduled for June, 1991. Large-scale Semi-works trials have been completed for two levels of ASTA replacing RCB in Spanish Marlboro. Subjective qualification of ASTA sheet in Spanish Marlboro will be made by the Richmond Panel. Various flavor formulations in SIVA (Spanish feedstock) are being subjectively evaluated for replacement of RL's in Fortuna. Selected flavor formulations will be used for trials in the Cadiz facility during the first quarter of 1991.

Estimated Resources: 1.10

Primary Contact: J. Swain

2021529945

Source: https://www.industrydocuments.ucsf.edu/docs/xhkl0000